Chapter 6

CULTURAL RELATIONSHIP WITH OTHER PARTS OF INDIAN SUB-CONTINENT AND SOUTH-EAST ASIA

It is generally considered that the tool assemblages from NE India have similarity with the Hoabinihian tool tradition of SE Asia, which stretches from Laos and Vietnam through Thailand and the northern half of Sumatra, with the tool finding locations typically being mountainous and karstic terrain (White, 2011). There have been studies on the assemblages from the Garo hills in Meghalaya, and cave sites in Manipur (Jamir et al. 2017), and cultural materials from Parsi-parlo in Arunachal Pradesh that concluded that the tools appear to be typical Hoabinihian (Sharma, 1984). The tool assemblages of Tripura are similar with the tools of Bangladesh and of Anyathian cultural assemblages of Myanmar, which is regarded as the contemporary culture of Hoabinihian and Basconian tradition of Indo-China. Similiar tools made of the same fossilized lithology are the foundation for the cultural similarities between Tripura, Bangladesh, and Myanmar. The term Anyathian, given by Movius to the stone artifacts that were typically large pieces of fossilized wood and heavily water rolled, and which were thought to date to the late Pleistocene, has been challenged by many modern scholars of Myanmar origin who think it would be more accurate to place it between the Hoabinihian and Neolithic periods (Aung et al. 2015). Mohanty et. al (1997) claimed that there is similar Hoabinihian tools found from eastern India particularly from Odisha. Shouldered Celt and cord-marked pottery have been found at sites in Meghalayan Garo Hills, as well as other tool types like those found in the Hoabinihian tradition, which is considered an earlier phase than the Neolithic. Furthermore, this tool tradition appeared in the Late Pleistocene or early Holocene epoch, indicating its earlier occurrence. From the site Parsi-parlo (Arunachal Pradesh), there are three stages of cultural sequence: the first represents Aceramic Neolithic with Hoabinihian tool assemblages, the second represents Ceramic Neolithic with Shouldered Celt and Cord marked pottery, and the third represents Ferro-lithic.

The scholars who have so far studied this area have developed several hypotheses to comprehend the cultural assimilation of materials with the countries of mainland Southeast Asia, beginning with the discovery of the first stone tools and their behavioral patterns in subsequent studies. Despite having many similarities with southeast Asia

geographically and linguistically and being separated culturally from the other parts of Indian sites particularly in earlier periods, an effort will be made in this chapter to understand their relationship to develop a core and periphery model to understand the geographical openings and barriers of contemporary cultures (such as the geographical-cultural transmission model).

6.1: Neolithic sites from other parts of India

It was previously believed that the Kashmir Neolithic or Northern Indian Neolithic originated in China (Stacul et al. 1987), but this theory was refuted on the grounds that while it might have had indirect contacts with China, it appears to have a fully developed agricultural economy based on west Asian domesticated crops, suggesting that its origins are most likely to the west (Betts et al. 2019). There is clear evidence for the development of Neolithic settlement in this area towards the early third millennium BCE with permanent and semi-permanent agricultural settlement and their own fields on the valley floor with simple irrigation. The south Indian Neolithic phase is demarcated with ground and polished stone tools along with the mounds of ashes which are the significant cultural development of the area. In case of this area the subsequent Megalithic phase, following the Neolithic, shows a very diverse and complex society (Moorti, 1994) and according to Leshnik (1974) this Megalithic phase was attributed to the arrival of immigrants into that area. Nevertheless, the transition between Neolithic and Megalithic periods remains ambiguous, as asserted by Fuller et al (2015). Allchin (1963) remarked that the ash mounds show seasonal habitation or a camping site which was supported by the studies done by Korisettar (2001). Despite the presence of Axes and Adzes, which are the markers of Neolithic ground and polished artefacts worldwide, the Neolithic cultures of Northern India and Southern India have nothing in common with those of North-east India. The remaining sites of that part of India contain habitational deposits in the form of pit dwellings in Northern India and Ash mounds with wattle and Daub structures in southern part of the country, both of which are typical of that cultural period in those locations.

Most of the Belan Valley Prehistoric sites, have multi-cultural material evidence ranging from the Palaeolithic to the Iron age via Neolithic occupation. They have ground and polished stone tools such as axes and adzes (shouldered variety absent), along with microliths and handmade pottery. The sites of Koldihawa and Mahagara

have cord-marked pottery (Sharma et. al, 1980), but the surface treatment and decoration differ from those found at Daojali Hading (Roy, 1977) Though, it is increasingly recognized that the study of decorative style is insufficient for identification of past social boundaries and they can span cultural boundaries through trade and imitations (Stark, 1998). The sites of Bihar (Eastern Indian Neolithic zone); Chirand and Chechar, contain cultural evidence ranging from Neolithic to early historic, as well as structural evidence in the form of wattle and daub houses. Stone tools from Chirand included celts and axes, as well as a shouldered variety. There are ceramics from the sites but no evidence of cord-marked pottery (Narayan, 1966). The Neolithic sites of Odisha have yielded evidence of ground and polished stone tools, non-geometric microliths, and orange brown ware. Domesticated rice has been discovered at the site of Baidyapur (IAR, 1923-24). One single shouldered celt was reported from the site Kuchai (Thapar, 1961-62), extending the range of the shouldered celt up into the Odishan region. The main difference between other parts of Indian Neolithic sites and Northeast Indian Neolithic sites is that there are Celts, Axes and Adzes (with the exception of Shouldered variety) recovered from all over the sites, but not with the association of cord-marked ware, which is typical of Northeastern Neolithic sites (shouldered celt, axes with cord-marked pottery). Furthermore, no habitational deposit with structural remains has been discovered at any of the sites in Northeast India.

Table No 6.1: Neolithic Sites from other Parts of India referred to in the text

Site name (Reference)	**Area**	**Material evidence**	**Date**	**Remarks**
Burzahom (Yatoo, 2012)	Kashmir Valley (Northern Neolithic complex)	Stone tools (Axes, adzes), chisels, handaxes harpoons, scrapers, grey ware potsherds (globular jars, bowls)	C. 2881-1730 BCE	Pit dwellings are the distinctive feature of Kashmir Neolithic. Mat impressed pottery. Painted pot with Kot-Diji affiliation.
Gufkral (Yatoo, 2012)	Kashmir Valley (Northern Neolithic complex)	Stone tools (Axes, adzes), chisels, handaxes harpoons, scrapers, grey ware potsherds (globular jars, bowls)	C. 2554-1772 BCE	Bones of both wild and domesticated animals. Grains of domesticated wheat, barley, lentils.
Chopani Mando (Sharma et. al, 1980)	Uttar Pradesh (Vindhyan Neolithic)	Ground stone tools, anvils,		Belan valley. Cultural sequence

		querns, mullers, handmade pottery		from Epi-palaeolithic to proto-Neolithic
Koldihawa (Sharma et.al, 1980)	Uttar Pradesh (Vindhyan Neolithic)	Ground stone tools, microliths, handmade pottery with cord-impressions, rusticated and burnished		Belan valley. cultural sequence from Neolithic to iron age through chalcolithic
Mahagara (Sharma et. al, 1980)	Uttar Pradesh (Vindhyan Neolithic)	Neolithic blades. Microliths, pottery, quern, celts. Cord impressed pottery, burnished red and black		Belan Valley. Single cultural site i.e. Neolithic. Difference in surface color and decoration pattern then Daojali Hading.
Chirand (Narayan, 1996)	Bihar (Mid-eastern region)	Artefacts of bone and antler, points, borers, celts, axes, pestles and querns, microlithic blades, scrapers. Ceramics constitutes red, grey and Black and Red Ware pots		Cultural sequence from Neolithic to Early Historic through Chalcolithic. Structural evidence in form of wattle and daub houses.
Chechar (Narayan. 1996)	Bihar (Mid-eastern region)	Artefacts of bone and antler, points, borers, celts, axes, pestles and querns, microlithic blades, scrapers. Ceramics constitutes red, grey and black and red ware pots		Cultural sequence from Neolithic to Early Historic through Chalcolithic. Structural evidence in form of wattle and daub houses.
Golbai Sasan (Mohanty et. al, 2012)	Odisha (coastal region, near Chilka lake)	Dull red and grey Ware pottery with cord impression, Neolithic celts and bone pieces	C 4500-3200 BP (Neolithic)	Cultural continuation from Neo-Chalcolithic to Iron age
Kuchai (Thapar, 1961-62)	Odisha (Keonjhar District) central eastern region	One Shouldered Celt during earlier exploration. Rounded butt end axe, chisels, pounders, grinding stones. Coarse grit red ware, orange brown ware.	1200-800 BCE (TL dating on pottery)	Neolithic artefacts
Baidyapur (IAR, 1923-24, pp. 100;	Orissa (Mayurbhanj district)	Non-geometric microliths, Neolithic tools, potsherds		Domesticated rice.
Watgal (Deveraj et al. 1995)		Neolithic ceramics, flaked lithic artefacts	Bayesian date 2200 BCE (Fuller et al. 2015)	Ashmound deposits
Piklihal (Allchin, 1963)	Near granite outcrops			First stratified artefactual evidences of Early and Late Neolithic, subsequent

				Megalithic culture and continuous occupation till early centuries of CE.
Utnur (Allchin, 1963)		Ground stone tools (Axes. Adzes), microliths, Coarse pale-red ware, cattle hoof prints.	2800-2200 BCE/ 2500 BCE	Ash mounds. Three phases of Neolithic culture. Evidence of post holes
Sanganakallu (Subbarao, 1948)	Bellary district (Eastern Karnataka)			Around the cluster of hills
Hallur (Korisettar et al. 2001a)	Upper Tungabhadra River Basin			
Budihal (Paddayya, 2019)	Yadgir district of north Karnataka	Neolithic artifacts such as hammerstone, rubberstones, querns, and potsherds	3750±35 BP	Ash mound as a distinct category of seasonal pastoral camp. Evidence of round houses

6.2: Sites of Bangladesh and Nepal

In the current political context, Bangladesh shares border with four Northeastern states, which has always been a cultural and physiographic part of the region. A narrow strip of land connects India to Myanmar to the southeast. The main river system of Assam, the Brahmaputra, has a downward closing in Bangladesh as it joinsthe Padma, which is part of the Ganga system. The combined river system,known as the Yamuna-Padma-Meghna, flows through Bangladesh and eventually joins the Bay of Bengal. Bangladesh is in a tectonic zone like the Northeastern region, and its climate is tropical monsoon, with vegetation ranging from tropical wet evergreen and semi-evergreen forests to tropical moist deciduous. There are three physiographic zones: a stable shelf, a central deep basin, and the Chittagong-Tripura Basin. The central deep basin is the Ganges and Brahmaputra floodplain, which was formed during the Tertiary era by sediments washed down from surrounding highlands, particularly the Himalayas to the north. The Chittagong-Tripura belt is the hilly region where all prehistoric cultural materials have been discovered. So, both geographically and environmentally, Bangladesh and the current northeastern states of India is one region, linked by hills, mountains, and rivers.

There are two significant prehistoric sites: Lalmai Pahar-Mainamati and Chaklapunji tea state. These sites are classified as pre-Neolithic and Neolithic cultural phases based on the typo-technological characteristics of the stone tools that have been found there. Lalmaipahar, a geologically isolated, a narrow strip of small hills separated from

Tripura hills by the high floodplain of Comilla Basin; and the Chaklapunji sites are formed on the low hillocks. The pre-Neolithic assemblages found from the two sites are; handaxes, scrapers, cleavers, burins, core, and flakes whereas the Neolithic assemblages comprised celts, adzes and axes (Jahan, 2016). However, the Acheulian connotation of handaxes needs to be verified as the date approximately 35 ka (mentioned in table no 6.2) does not match with Acheulian techno-cultural identification. They may be bifaces, could be used as axes, rather than being Acheulian handaxes. This needs a further investigation in ther future. The artefacts have been found at the top, on the slopes of the hills as well as from the surface of erosional deposits. Chakrabarti 2001:33-42) conducted an extensive survey of the area in 1989 and found silicified fossil wood artefacts in the uppermost soil profile at various sites throughout the Chittagong-Tripura belt. The most significant discovery in the area was the discovery of fossilized wood tools, the only example of a toolkit made of fossilized wood from South Asia, exposed in Pleistocene strata at that time. These rocks are most readily available in that region, along with those from the Haora and Khowai river valleys in western Tripura (Ramesh, 1987: 228–231), which are connected via the Chittagong–Tripura belt and from the North–Cachar Hills of Assam, particularly from the Langting River Valley. De Terra and Movius (1943) reported silicified fossil wood tools from the Irrawady River Valley of Burma or Myanmar that belonged to the Anyathian culture of that region. Some of the archaeologists point out that the Anyathian prehistoric culture spread to the region from Tripura, Assam and Myanmar (Roy and Ahsan, 2000; Chakrabarti 2007). This confirms the distribution of those tool assemblages from Bangladesh to Burma via some parts of Northeast India, which seems both geographically and culturally interconnected.

Nepal is geologically located on the Siwalik foothills of the Himalayas and thus formed by the deposition of sediments over a million years into a large foredeep along the entire foot of the Himalayas and thus geographically linked from Pakistan to the northeastern part of India. This region is a tectonically active zone, with numerous valley formations occurring during the Pleistocene to Holocene epochs due to various tectonic activities. Polished stone axes have previously been recorded from this region (Bannerjee and Sharma, 1969; Sharma, 1983), and later studies by Corvinus revealed a Palaeolithic to Neolithic period occupation (1985, 1987, 1989, 1990 and 1991). The Patu industry, with cultural assemblages of adzes, choppers, and microliths, is the stone tool industry that culturally linked this region with Southeast Asia and Northeast India. Corvinus claimed it belonged to the Mesolithic period, had affinities with the Hoabinihian

cultural phase of Southeast Asia (primarily Vietnam and Thailand), but had its own technique for making stone tools and a distinct culture in Nepal (Corvinus, 2007). Polished stone axes and cord-marked pottery have been recovered from the surface of sites Brakuti and Gadari in the Dang-Deokhuri area of west Nepal, and this tradition is like that of Northeast India and the Neolithic sites of North India. According to Whelpton (2000), a comparablepattern dating back to the second millennium BCE has been found in numerous localities throughout Nepal including the Kathmandu valley. Although most of these patterns resemble Assamese type, they have a unique feature that can be described as "a meeting place of two cultures; one expanding from Assam and Sikkim and other from North-India." The similar site provides evidence of a handaxe industry, similar to the Indian handaxe tradition (Corvinus, 1985). The site was designated as the youngest Palaeolithic site by Cornivus. So, Nepal has been a geographical and cultural part of India since prehistoric times, and its amalgamation extended up to Southeast Asia via Northeast India in later periods.

Table no 6.2: Prehistoric sites from Bangladesh and Nepal referred to in the text

Site name (Reference)	**Area**	**Material evidence**	**Date**	**Remarks**
Lalmai-Mainamati sites (Jahan, 2016)	Comilla District of Bangladesh	Stone axes and celts, Acheulian type handaxes, Blades	35000 BP (Roy et al. 2001)	Tools made of fossil wood, habitation site up to pre-Mediaeval period.
Chaklapunji (Jahan, 2016)	Habigunj District, Bangladesh	Handaxe, scrapers, cleavers, borer, flakes, chips, celts, adzes	35000 BP (Roy et al. 2001)	Tools made of fossil wood. Habitation site.
Rato Khola (Cornivus, 1989)	Mahottari District of Eastern Nepal, Near Pato River	Adzes, Choppers		Mesolithic-Microlithic industry also called as Pato Industry
Brakuti and Gadari (Whelpton, 2000)	Dang-Deokhuri area of west Nepal	Polished stone axes and cord-marked pottery	1600 BP (Corvinus, 2007)	A surface finding from grey soil profile

6.3: Neolithic sites from Yangtzi Valley (China)

There are cultural ties between northeast India, Southeast Asia, and Southern China, as evidenced by material culture discovered at sites in these areas. The most widely accepted view is that the cultural diversification in south-east Asia's prehistoric period is a late Holocene phenomenon, occurring after rice cultivation societies with Austro-Asiatic linguistic family (Bellwood, 2005: 132). Based on phytolith analysis and pottery, the Yangtzi Valley Neolithic sites, namely Diaotonghuan and Xianrendong, are dated between 12,500 and 8000 BP, with a cultural sequence spanning the Pleistocene geological epoch to the early Neolithic cultural period, and the presence of cord-marked ware, which may be the easternmost extension of cord-marked ware. Rispoli (2007) has dated the Yangtze Valley cultures to 6000-4000 BCE. The Yangtzi Valley is connected to Southeast Asia by the River Bei, which flows south and radiates out from a hub in the eastern Himalayan foothills. River Bei than joins the Red (Vietnam), Mekong (Vietnam, Thailand, Laos, Cambodia, China, Myanmar), crossing the southeast across mainland southeast Asia, and Chao Phraya River (Thailand) systems which run east to west, and this pattern is repeated further west in the form of the Irrawady and Chindwin River (Burma or Myanmar), and Brahmaputra (Northeast India) rivers, extending west to the Ganges. These rivers served as the main conduits for communication and transportation (Higham, 2002: 85).

Table no 6.3: Prehistoric sites from Yangtzi Valley, South China referred to in the text

Site name **(Reference)**	**Area**	**Material evidence**	**Date**	**Remarks**
Diaotonghuan (Zhao Zhijun) (Yuan Jairong and Zhang Chi 1999)	Yangtzi Valley	Phytoliths, Cord-marked vessals	10000-8000 BP (relative dating based on rice)	Sequence of layer from Pleistocene to early Neolithic cultural phase
Xianrendong (Yuan Jairong and Zhang Chi 1999)	Yangtzi Valley	Phytoliths, Cord-marked vessels	12,500 BP (date from the potsherds) 8000 BP (the lower layer	800 m distance from Diaotonghuan. A Lower Palaeolithic deposit under a Neolithic horizon containing rice phytoliths.

6.4: Neolithic sites from Southeast Asia

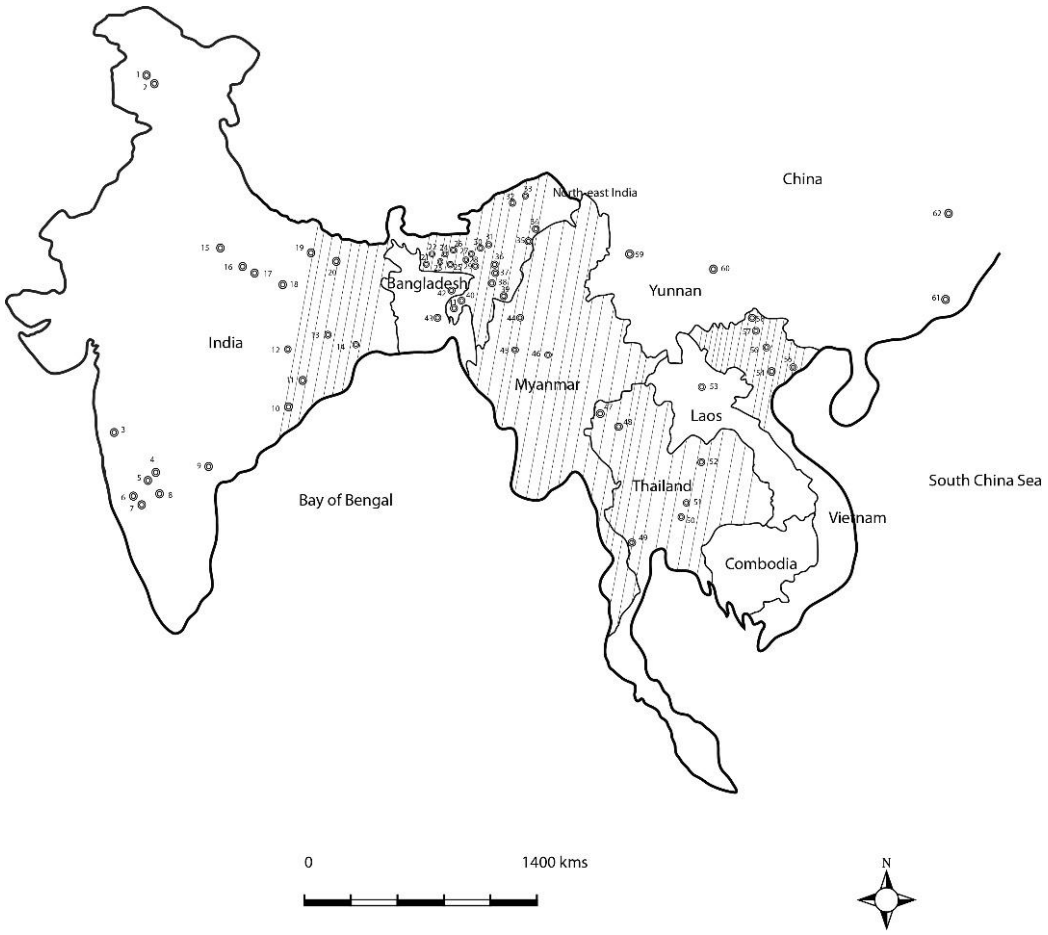
Northeast India and the countries of mainland Southeast Asia demonstrate resemblances in their geographical characteristics. Due to their tropical locations, both regions exhibit complex and diverse environments. Additionally, the regions have a higher concentration of tectonic activity, which has resulted in a variety of strikingly different landforms, from high mountains to low lying regions (White, 2011). The prehistoric cultural diversity of Southeast Asia is said to be closely related to that environmental diversity. Early bamboo exploitation, according to White (2011), was a crucial means by which the societies made technological decisions, created technological styles, and first expressed cultural diversity in material culture. The Assam region's prehistoric sites have vegetation that is primarily bamboo-covered. A study on the bamboo treasure of North-Cachar (present Dima hasao District) hills of Assam revealed that this vegetation occupies 80% of the total forest area and widely used by the present population living in the rural area and forms a major component of house construction, house hold articles, agriculture, horticulture, as food and additionally sources of income (Doungel, 2007-08). According to Sharma (2007) the cultural affinities between northeast India and southeast Asia can partly be attributed to peaceful migration and partly to adaptation to a similar environment.

Table no 6.4: Neolithic sites from Southeast Asia referred to in the text

Site name (Reference)	**Area**	**Material evidence**	**Date**	**Remarks**
Phung Nguyen (Hoang Xuan Chinh and Nguyen Ngoc Bich, 1978)	Vietnam	Stone Adzes (Four specimen of Shouldered Variety), stone chisels, ceramics, bone artefacts	Late 3rd to mid-2nd Millennium BCE	On the bank of Red River which joins Bei River which ultimately connects the southeast Asia with Yangtzi valley
Co-Loa (Hoang Xuan Chinh and Nguyen Ngoc Bich, 1978)	Vietnam		2000 BCE	Red River Valley
Go-Bong (Hoang Xuan Chinh and Nguyen Ngoc Bich, 1978)	Vietnam	Pottery with incised parallel bands		Clear parallel with Yunnan Neolithic sites of Baiyancun and Dadunzi
Trang Kenh (Nguyen Kim Dung 1990, 1998)	Vietnam	Ceramics similar like Phung Nguyen, Chisels, grinding stone, drill points	1650-1500 BCE (radio-carbon date)	Key link with Chinese Neolithic

Ha Giang Sites (sites together called as Ha Giang Culture) (Bui Vinh 1995)	Vietnam (Upland North of Red River)	Stone adze, stone bangles, and Ceramics		
Con Nen (Bui Vinh 1995)	Vietnam (Coastal site, South Vietnam)	Stone beads, stone bangles, adze heads, decorated potsherds	Not dated	Late Neolithic site
Baiyancun (YPM 1981)	Yunnan	Ceramics decorated with a distinctive series of patterns, parallel incised lines with impressions	2400-2100 BCE	Link with Yangtzi, Mekong and Red rivers, reveals an expansionary movement towards westward
Dadunzi (YPM 1981)	Yunnan	Pottery similarity with Baiyancun, Burials	Mid-2nd Millennium BCE	Link with Yangtzi, Mekong and Red rivers
Spirit cave (Higham, 2011)	Thailand (Northern)	Potsherds, adge ground stone adzes	1400 BCE	Earliest evidence of Neolithic revolution
Banyan Valley (Higham, 2011)	Thailand (Thai-Burmese border)	Stone axes, Hoabinhian flaked stone tools, potsherds	900 CE	Origins of early domestication
Ban Chiang (Gorman and Charoenwongsa, 1976)	Thailand (Mekong Valley)	Burials, ceramics	2190-1880 BCE 2050-1500 BCE	Earliest contexts for the Neolithic of the Khorat plateau
Non Nok Tha (Bayard; 1971, 1972)	Thailand (Mekong Valley)		2307-1858 BCE 1770-1310 BCE (two date for early period)	
Ban Phak Top (Schauffler, 1976)	Thailand (Mekong Valley)	Ceramics with black incised style	2000 BCE	Stratigraphic level 8 is dated between 1000-1500 BCE
Ban Lum Khao (Schauffler, 1976)	Thailand (Mekong Valley)	Ceramics with black incised style	1500 BCE	
Ban Sanuan (Schauffler, 1976)	Thailand (Mekong Valley)	Burials and pottery of Neolithic affinities	Not dated	
Ban Tha Kae (Mudar, 1995 and Kealhofer, 1997)	Thailand (The Chao Phraya River plain)	Phytoliths of domestic rice specimen, adzes, shouldered adzes, burials with red slipped and black incised pottery.	2500-2000 BCE (Based on carbon dating)	Archaeological evidences prior the date is not found
Non-Pa Wai (Pigott et al, 1997)	Thailand (The Chao Phraya River plain)	Pottery sherds, Stone adzes, marine shell jewellery, burials with stone adzes	2500-2000 BCE	Pottery sherds with incised and impressed designs, basket marks on surface. Low lying swampy habitat

Non-Mak La (Pigott et al, 1997)	Thailand (The Chao Phraya River plain)	Ceramics, Burials	Not dated	
Khok Charoen (Ho, 1984)	Thailand (between Phetchabun range and Pa Sak flood plain)	Ceramics (incised and impressed designs, cord marked and red slipped) Stone Adzes, burials	Not dated	
Ban Kao (Ho, 1984)	Thailand	Pottery (carinated bowl with tripod feet, goblet), Stone adzes, burials, beads	2300-1500 BCE	Largest exposed Neolithic site of Southeast Asia
Tam Hang (Rockshelter) (Higham, 2002)	Laos	Cord impressed pottery, impressed, and incised decoration, parallel lines and lithic objects with Hoabinhian affinity		Pottery assemblages similar to most of the prehistoric sites of Southeast Asia. Animal fossil confirms a chronology from late Pleistocene to Holocene periods
Nyaung'gan (Pryce, Thomas Oliver et. al. 2018)	Myanmar (Burma)	Pottery	Late second/early 1st millennium BCE	Chronology from late Neolithic to Early Bronze/Copper Age
Oakaie (Pryce, Thomas Oliver et. al. 2018)	Myanmar (Burma)	Pottery	Late second/early 1st millennium BCE	Chronology from late Neolithic to Early Bronze/Copper Age
Padah-Lin Caves (Pryce, Thomas Oliver et. al. 2018)	Myanmar	Pebble tools, scraper of Anyathian culture, shouldered adze		Occurrence of potsherds shows its Neolithic pattern. Early Neolithic (Hoabinhian and Basconian cultures of Indo-China)



Map 6.1: Neolithic site distribution of India, South-east Asia and China with the extension of Shouldered Celt (After Das and Krishnan, 2022)

(1.Burzahom; 2.Gufkral; 3.Brahmagiri; 4.Maski; 5.Piklihal; 6.Utnur; 7.Hallur; 8.Sanganakallu; 9.Nagarjunakonda; 10.Golbai Sasan; 11.Kuchai; 12.Barudih; 13.Baidyapur; 14.Tamluk; 15.Lauharadeva; 16.Chopani Mando; 17.Mahagarha; 18.Koldihawa; 19.Chirand; 20.Chechar; 21.Rongram and Ganol river valley; 22.Chibragre; 23.Mishimagre; 24.Bibragre; 25.Selbalgiri; 26.Bambooti; 27.Myrkhan; 28.Lawnongthroh; 29.Phynthorlangtein; 30.Sarutaru; 31.Bogibori; 32.Parsi-parlo; 33.Daporjio; 34. Chungliyimti; 35. RanyekKhen Cave sites; 36. DaojaliHading; 37. Mailu; 38. Asalu; 39. Nongpok-keithelmanbi; 40. Khas-Kalyanpur; 41. Kolaghar; 42. Chaklapunji; 43. LalmaiPahar; 44. Oakaie; 45. Nyanung'gan; 46. Padah-lin caves; 47. Banyan Cave sites; 48. Spirit caves; 49. Ban Kao; 50. Non-pa-wai; 51.Khok Chareon; 52.Non-Nok Tha; 53. Tam Hang; 54. Co-Loa; 55. Trang-Kenh; 56. Phung Nguyen; 57. Con-Nen; 58. Ha-Giang; 59. Dadunzi; 60. Baiyancun; 61. Diaotonghuan; 62. Xianrendong).

The tool assemblages found from the explored sites of this present research does not have similarity with the Hoabinhian tool tradition but with most of the SE Asian Neolithic sites and they were made of typical Neolithic ground and polished method. The basis for comparison rests on typological considerations and chronometric dating. In the case of typology, the tools found in the study area share similarities with those from Southeast Asian Neolithic sites, indicating common technological practices. Conversely, the Hoabinhian tradition primarily constitutes a tool industry that involves the flaking of rolled pebbles, either unifacially or bifacially, to create sharp edges (Matthews, 1966). Typologically the definition of Hoabinhian (See figure no 6.2) is closely related to the morphology of the knapped tools and the most typical tool is 'Sumatralith' which is obtained by peripheral unifacial shaping from the plane surface of the cobble and associated tools includes scrapers, choppers, hammers, discs, axes etc. Technologically, it is a process to produce macro-tools and small tools comprised of a typical shaping sequence to produce chopper-chopping tools on river cobbles; a unifacial shaping sequence on cobbles to produce unifaces and a split debitage sequence to obtain half-cobble (Forestier et al. 2020). Later Gorman (1972) described the tools from Thailand as a unifacial flaked tool tradition made primarily on water rounded pebbles or a larger flake detached from these pebbles i.e., core tools. Basically, those tools seem similar to core tool tradition like choppers of earlier period though the date for Hoabinhian is rather late. On the other hand, as far the content of the table (see table no 6.4) shows the Neolithic sites of Southeast Asia, mostly dated to 2nd to 3rd millennium BCE up to 900 CE, with the assemblages comprising of adzes, axes (shouldered variety) that has the similar kind of stone tool tradition as the present study area with the association of cord-marked pottery, though all the sites from Southeast Asia have the richest cultural material comparatively. Additionally, chronometric dating reinforces the divergence, as the Hoabinhian tradition is commonly referred to as belonging to the late phase of Pleistocene or early phase of Holocene and considered Mesolithic rather than Neolithic (Demeter; *et al.* 2010) and classified as a Mesolithic industry of northern Vietnam (Matthews, 1966). Study by Ji et al. (2016) no longer viewed Hoabinhian techno-complex tool tradition belonging to "Mesolithic phenomena" since the earliest known Hoabinhian site at Xiaodong rock shelter in Southwest China dates to 43000 BP and the site Huai Hin in Northwest Thailand is dated to 3700 BP, considered to mark the end of the tradition (Forestier et al. 2013; Zeitoun et al. 2008). While the date of the Neolithic sites from Assam is 2.7±0.3 ka.

This time disparity is crucial in highlighting the distinct temporal contexts of these tool traditions.

Figure 6.1: Hoabinhian tool assemblages from Moh-Khiew Cave, Thailand; Chopping tools, Bifacially retouched block and Bifaces from Moh-Khiew (see figure 5 and 12; after Forestier et.al. 2020)

So, in order to study the cultural materials of the study area, we should consider the celts, axes and adzes tradition along with the typical shouldered variety. The extension of shouldered celt cultural material denotes the Neolithic phase of a specific zone, the south-westernmost extension is Odisha (Mayurbhanj district and Keonjhar district), North- westernmost extension is Chirand, Northern extension is Arunachal Pradesh (Parsi Parlo), eastern extension is Phung Nguyen in Vietnam and southernmost extension is Ban kao, Thailand. On the other hand, if cord-marked pottery is considered another marker of Neolithic or early agricultural cultural extension, Koldihawa will be the westernmost site and Xienrendong in China will be the easternmost site. However, these pottery traditions with the definite designs or marks on the surface, continues up to a very longer period even until historical period which has been reported all over from Indian sub-continent and therefore it would be difficult to place it into one cultural frame. Regardless of the sites reported from northeast India, this distribution shows a westward movement of population with shouldered celt cultural traits, as sites in Southeast Asian countries provide abundant evidence of settled ways of life in the form of cord marked pottery, bone artefacts, and habitational deposits.

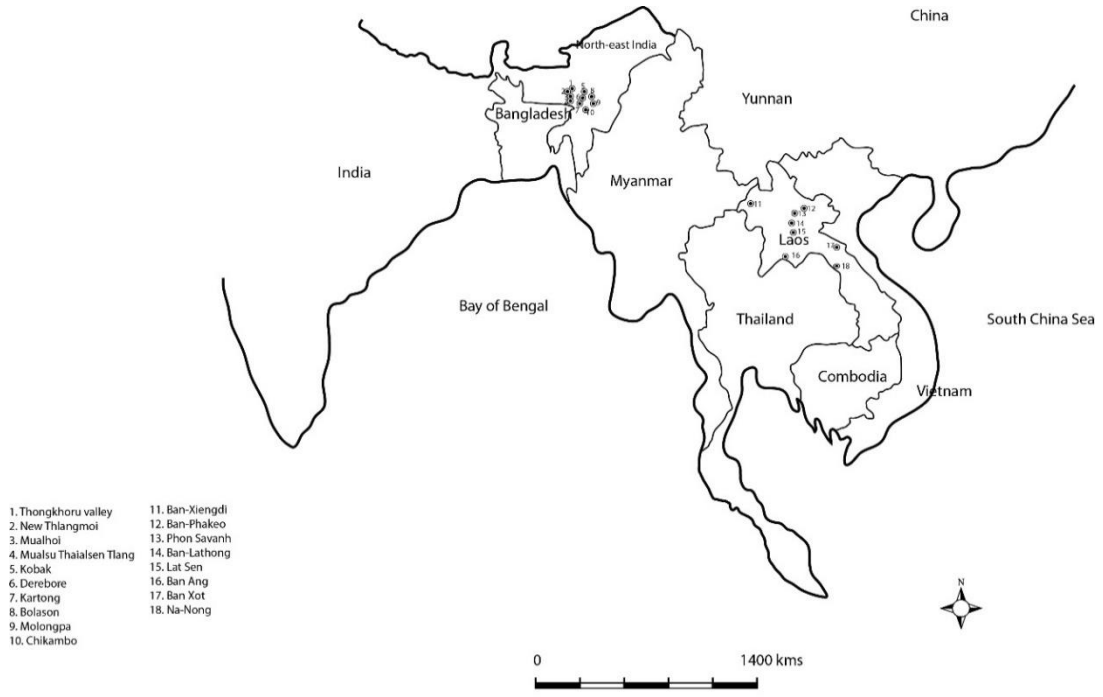
6.5: Stone Jar Sites of Northeast India and Southeast Asia

Through a thorough and methodical investigation, building upon prior research, this study illuminates the existence of stone jar sites nestled within the expanse of North Cachar Hills, neighboring the Jaintia Hills of Meghalaya. Exploring into two specific sites as expounded in Chapter 4, the inquiry reveals a unique cultural landscape that has flourished in these areas. This indigenous culture presents remarkable resemblances to akin sites found in Laos and Southeast Asia, shedding light on the intricate web of historical interactions across continents. The sites offering substantial evidence of stone jars across various locales in both Northeast India and Southeast Asia are comprehensively presented in table 6.5, detailed below.

Table no 6.5: Stone Jar sites from Northeast India and Southeast Asia referred to in the text

Site name (Reference)	**Area**	**Material evidence**	**Date**	**Landscape**
Bolason (Thakuria, 2014, 2019)	North Cachar Hill (Assam)	Stone jars	Not dated	Flat plain area over a hillock, slope area covered with thick scrubs, used as jhum cultivation land
Chaikam	North Cachar Hill (Assam)	Stone jars	Not dated	Slope area of small hillock, used at present as Jhum cultivation land
Kobak (Thakuria, 2014, 2019; Deori and Hassan, 2019)	North Cachar Hill (Assam)	Stone jars	Not dated	Hill top at a higher altitude
Kartong (Thakuria, 2014, 2019)	North Cachar Hill (Assam)	Stone jars	Not dated	
Derebore (Thakuria, 2014, 2019)	North Cachar Hill (Assam)	Stone jars	Not dated	
Molongpa (Thakuria, 2014. 2019)	North Cachar Hill (Assam)	Stone jars	Not dated	
Thongkhoru Valley (Vasudevan, 2021-22 and Mitri et al. 2022)	East Jaintia Hills, Meghalaya	Stone jars	Not dated	Top of a hillock towards Saipung reserve forest
New Thlangmoi (Vasudevan, 2021-22)	East Jaintia Hills, Meghalaya	Stone jars	Not dated	Densely vegetated by grass and trees
Mualhoi (Vasudevan, 2021-22 and Mitri et al. 2022)	East Jaintia Hills, Meghalaya	Stone jars	Not dated	Hillock

Mualsu Thaialsen Tlang (Mitri et al. 2022)	East Jaintia Hills, Meghalaya	Stone jars	Not dated	-
Phon Savanh (Colani, 1935; Higham, 2002)	Laos	Stone Jars	300 BCE-300 CE	Also called as plain of jars. Raised area jars are considered as for ruling groups
Pu Keng (Higham, 2002)	Laos	Stone jars	-	Both complete and incomplete jars. There are pottery vessels and human bone.
Ban-Ang (Higham, 2002)	Laos	20 stone jars with discs, glass beads, iron tools, knives	Late first millennium CE to early 2nd Millenium CE	Terracotta jars were also found used as secondary burials (Reilly et al., 2018). Jars revealed burial pits containing human remains
Lat-Sen (Higham, 2002)	Laos	Stone jars. Axes, stone pendants, ceramic sherds.	-	On top of a small hillock: Site location. Colani reported more than 80 jars. Recent documentation counted 93 jars, 14 discs.
Ban-Xiengdi (Higham, 2002)	Laos	Stone jars, ring stone, stone pestles, glass beads and ear discs.	-	Hill slopes overlooking a wide plain. 240 stone jars and 41 discs made of sandstone
Ban-Lathong (Higham, 2002)	Laos	Stone fragments, glass beads, bronze bangle, iron ring, potsherds.	-	Jars on hilltop, made of sandstone blocks with boulders.
Ban-Xot (Higham, 2002)	Laos	Stone jars, glass beads, bronze bangle, iron ring, potsherds,	-	Located on a hilltop, lie in the field of boulders of quartz rich sandstone. High altitude. Jars are surrounded with ring of burial stones. 21 jars
Ban-Phakeo (Higham, 2002)	Laos	Stone jars	-	Ten jars of fine red sandstones, a disc with a human figure carved on it, both finished and unfinished jars. Seems a quarry site based on the nature of the surrounding site.
Na-Nong (Higham, 2002)	Laos	Polishing stones, a ceramic jar, potsherds, glass beads, bronze and iron fragments	-	Jars made of Granite, 34 poorly preserved jars.



Map 6.2: Extension of Stone jars (After Das and Krishnan, 2022)

The distribution of stone jar sites extends from the westernmost region of the Jaintia hills in Meghalaya to the easternmost area of Na-Nong in Laos. However, there are noticeable gaps in the distribution, particularly in Myanmar and Nagaland-Manipur of Northeast India. Surprisingly, despite lying along the migration routes of people with stone jar cultural traits, these regions lack any evidence of stone jars. It is plausible that geographical barriers hindered the selection of these regions as settlements by the stone age cultural inhabitants, leading to the observed gaps in the distribution pattern. Further investigation is required to understand the factors influencing settlement choices and the cultural dynamics of these regions. A noteworthy resemblance can be observed between the sites in Laos and North-Cachar concerning their choice of locations for the installation of stone jars and the adoption of the secondary burial system. It is evident that in both cases, preference was given to small hillocks characterized by sloping topography and higher elevation, which were deemed suitable for the implementation of these cultural practices. This striking similarity in the site selection hints at the possibility of shared cultural traits and beliefs between the two regions. Sandstone was employed as the primary raw-material in both cases apart from Na-nong, where granite was used to make the jars. The sole distinction is that in the North-Cachar hills, there is no accompanying cultural material. As the same sites are currently being used as cultivated ground for the jhum practice in North-Cachar, the jars are found to be

damaged. Colani (1935) after studying the stone jars of Laos, gave a date of about 500 BCE to 300 CE and for the jars of North Cachar she remarked that the Mon-Khmer population who she relates with the maker of stone jars, must have entered the area during first millenium BCE. The DNA evidence collected from a small group of Khasi population from North Cachar confirms its association with the Mon-khmer group (Thakuria *et al.* 2016). Colani remarked that the upland areas are major source of salts in those days and Laos controlled the salt trade and for the importation of exotic resources from some considerable distance. Later study pushed back the date of Laos stone jar sites to 2nd millenium BCE (Sayavongkhamdy and Bellwood 2000).

6.6: Historical Relation with other parts of Indian subcontinent and with South-east Asia

The historical interactions or influence of other Indian regions on this northeastern part of the country is established by several historical and archaeological facts. Chatterji (1955) raises doubts regarding the ascription of an advanced cultural status to assam solely based on its supposed mention in the Mahabharata. Furthermore, the term "Pragjyotisha" is considered a subsequent Sanskritization of Austro-Asiatic words, leading to skepticism about its association with a sophisticated cultural milieu in the region. Moreover, the sixteen Mahajanapadas from the sixth century BCE do not mention Kamarupa or Pragjyotishapura, as was mentioned in chapter 4. During the Gupta period, interactions between the region and the other parts of the Indian subcontinent commenced. However, from an archaeological perspective, the evidence for this interaction during the earlier Sunga-Kushana period remains inconclusive and uncertain, primarily relying on a singular terracotta figurine. Therefore, it becomes challenging to establish with certainty the extent of cultural assimilation from northern Indian during the Sunga-Kushana period. The historical evidence for the Gupta period, on the other hand, may draw from various sources such as inscriptions, temple remains, and other material culture, providing more concrete grounds for identifying interactions and influences from that era. However, the ceramics collected so far from previous excavations and explorations belonged to the early Mediaeval period, commencing from the seventh century CE. The distinctive sherds unearthed in Ambari provide evidence of a material culture linked to an ancient and early Medieval riverine settlement, as expounded by Sharma (2012). Moreover, Sonowal (2006) has established

correlations between Ambari ware and pottery from the Gangetic plains. The understanding of relationships can be gleaned from the analysis of materials retrieved in the present study and from prior research. Several instances illuminate these connections, as outlined below:

- Based on the material evidence gathered for this research, certain pottery sherds collected in the vicinity of Guwahati city; exhibit striking similarities with Sisupalgarh pottery from the periods IIA (200 BCE-100 CE), IIB (100-200 CE), and III (200-350 CE) in terms of their form. Notably, certain dishes or plates showcase an out-turned rim with both externally and internally corrugated sides, along with a bluntly carinated quadrangular rim, which closely resembles the characteristics observed in some sherds unearthed from Sisupalgarh during the aforementioned periods. However, the fabric of the sherds, from Sisupalgarh seems cruder and ill fired whereas the fabric of pottery from Guwahati constitutes both fine to crude variety. The site Sisupalgarh was occupied from the beginning of the 3rd century BCE to the middle of the 4th century CE. The same potteries recovered from the study area are placed into a similar group with Ambari discussed in chapter 4 which makes some inferences regarding their earlier occurrences as the relative dating of site Ambari goes back to Sunga-Kushana period.
- The temple remains at Dah-parvatiya, in present Sonitpur District of Assam has the evidence of typical Ganga-Yamuna iconography on a door-jamb. This temple remains include a sanctum and a rectangular *mandapa* or a pillared hall, which has parallels to Parvati temple at Nachna Kuthara and Siva temple of Bhumara in central India, both belonged to Gupta cultural complex on stylistic grounds. Similar temple is at Baigram in North Bengal dated to 447-48 CE (Barpujari, 2007). Although this temple is still regarded as a piece of Gupta art, Asher (1980) notes that it lacks the depth of carving typical of the Gupta period and is more comparable to Deopani images found in the Sibsagar District of Assam to the east, the images of which are relatively dated to 8th-9th c CE as well as some Odishan temple of 7th-8thc CE; for example, the Parasuramesvara temple at Bhubaneswar. So, resemblance with Odishan temple remains and the regional sculptural art of 7th to 9thc CE shows the remains of Dah-Parvatiya belonged to post-Gupta period.
- The sculptural art of Brahmaputra Valley is the pinnacle of indigenous development with some external influences. It was during the period of 10th-11th century CE,

Assam came under the direct rule of Pala and Senas of Bengal. According to Baruah (2004), a majority of the early art forms and architectural remains from Kamarupa belonged to Pala period which has an influence of eastern Indian art form. The sculptures, recorded from Doyang-dhansiri valley in chapter 4 has resemblance with sculptures found from Shahbad and Gaya district of Bihar of Pala period.

- Mahasthangarh (Pundravardhana), a site in Bangladesh, and sites in Assam appear to have assimilated cultural elements at some point during the early historic and mediaeval periods, if we look at the sites' material cultures and their chronological development. Geographically and culturally, the two regions share Prehistorical similarities, as was already mentioned earlier in this chapter. The cultural chronology of Mahasthangarh (Smith, 2001) are as follows; period I: Early historic period (3^{rd} c BCE-2^{nd} c CE) with the evidence of Mauryan-Sunga remains and this phase is again divided into Mauryan (3^{rd} c BCE), associated with an inscription; Sunga (2^{nd}-1^{st} c BCE), associated with Terracotta figurines and 1^{st}-2^{nd} c CE, associated with potsherds (Department of Pakistan, 1966); period II: Gupta (3^{rd}- 6^{th} c CE), with the evidence of Gupta era sculpture similar to site Mangalkot of present West Bengal; period III: Pala and Sena period (8^{th}-12^{th} c CE) with the introduction of Buddhist remains, followed by the introduction of Hinduism (Sena) and period IV: Early Islamic (13^{th}-16^{th} c CE). Site Ambari from Guwahati has comparable material evidence, and relative dating demonstrates similar cultural development which is period I (2^{nd} c BCE to 3^{rd} c CE) with the evidence of Sunga-Kushana cultural material i.e. terracotta figurines; period II A (7^{th} c CE to 10^{th} c CE) associated with brick structural remains and sculptural art; period IIB (11^{th} to 14^{th} c CE) associated again with structural remains; period III (c 15^{th} to 17^{th} c CE) Medieval period associated with glazed ware and structural remains though Islamic rule was not extended up to this valley and period IV (18^{th} to 19^{th} c CE), modern period. The ceramic collection though not properly dated inlcude Arretine and Rouletted Ware of 1^{st} to 2^{nd} c CE. The archaeological sites in Goalpara, located in close proximity to Bangladesh, exhibit a cultural evolution starting from the 1^{st} century BCE. The region witnessed the emergence of rock-cut votive stupas, marking a significant milestone in its cultural development. Subsequently, during the Pala-Sena period, there was a notable advancement in sculptural art, reflecting the flourishing artistic expression of the time. The site Surya-pahar is the best example where assimilation of three religious sects co-exists in the form of

sculpture, rock cut caves, and monoliths. According to Choudhury (2013), the earliest culture in Goalpara region started from 1st c CE associated with the remains of rock-cut caves; but Barman (2017) put the cultural frame of Goalpara between 6th to 12th c CE with different phases. Brahmanical remains in the form of temple structures are dated to post-Gupta when ancient Assam was under the ruling period of Varman dynasty. But most of the sculptural remains are from Pala-Sena period who ruled this particular region from 9th to 12th c CE, before the coming of the Ahoms. However, it is essential to note that while the cultural development in both regions was concurrent, the representation of all periods in Assam's archaeological sites may not be as well documented as in Mahasthangarh.

- According to the history of the Song dynasty, the kingdom of Kia-pi-li in India sent two embassies to China in 428 and 466 CE and Baruah (1933) identifies the Kia-pi-li with Davaka, present Nowgaon District; after the river Kapili, a tributary of Brahmaputra. The excavation at Ambari and the ceramics recovered, namely Chinese Celadon and Mediaeval glazed ware, revealed that the river Brahmaputra was the primary means of communication and trade.
- There were trade connections between south-west China and India through the Silk route that existed as early as the 2nd century BCE through ancient Assam (Saikia, 2020) during the Han dynasty which were not continuous during 4th c CE due to various political events between Han dynasty and Central Asia. A rich archaeological record complement that Buddhism spread from India to China and East Asia via this route (Zufferey, 2008).
- During the 13th century CE, a significant historical migration occurred involving the great Tai or Shan race. According to historical chronicles known as "Buranji," this migration was from the northern and eastern hill regions of upper Burma and the western Yunnan province of China, commonly known as the Ahoms. The link between Yunnan and Assam through this historical migration highlights the interconnectedness and cultural exchanges between these regions.

6.6: Whether they can be considered as peripheral settlements/ sites of mainland India/or sites of south east Asia? Core- periphery model

The core and periphery model were developed in the 1950s by Paul Prebisch (1950) to understand aspects of economic developments and other issues in Latin America during the pre-industrial period, such as the economically developed "Core" and

underdeveloped "Periphery." Prebisch highlighted the unequal exchange in the flow of surplus value that has gone largely unnoticed in social sciences. According to Roger (2003), the geographic diffusion of innovations is shaped by the fact that core areas typically have a high potential for innovation, improvement, and growth. However, according to Friedmann (1966), the periphery may rely on growth that is primarily fueled by the core area's demand for resources and may experience lagging or even stagnant growth. To cover the stages of the pre-industrial, transitional, industrial, and post-industrial periods, he has given the terms "Upward transition region (advance and early)" and "Downward transition region (resource frontier region)" for the core areas and periphery, respectively. In order to describe the stratified hierarchies of power and dependency. Wallerstein's theory (1974) also incorporates the Core-Periphery model concept while interpreting the phenomenon of globalization. He mentions that the core and periphery are intricately linked together in terms of both material and socio-cultural terms, and that there are semi-peripheral zones that act as a buffer between the two.

From a historical standpoint, the core-periphery model is connected to urbanization and industrialization processes; regions with favorable geographic and communication locations benefitted from industrialization, despite the periphery areas' predominance to rural areas (Klimczuk et.al, 2019). The core-periphery model's importance in archaeology can be attributed in part to the fact that it offers a possible reconstruction of how ancient communities' trade and exchange relations may have been organized, as well as how these contacts may have spread the economic, political, and social structure of the interacting politics (Gavan et al. 2014). There must be a potential periphery within a chosen zone if one region or site is considered to be core region. This can be determined by examining the distribution of material culture and specific types of objects.

A more complex core-periphery model seems to be appropriate for civilizations like Harappa, which was derived by Herman (1996) from Subbarao's seminal idea of a cultural regionalism which was linked to ecological determinism. The 'Zones and Strata' concept developed by Subbarao's (1958) have been validated by the studies of a pre-pottery Neolithic culture in the nuclear Near East, dated 7000-8000 BCE at Jericho, similar community with an identical technology at the bordering region of Baluchistan dated to 3000 BCE, and rise of incipient agricultural community at Jarmo and Hassuma dated 5000 BCE, shows some testimony of the Indus Basin as a peripheral

region of the ancient cradle of civilization in western Asia (Subbarao, 1958). He also remarked that to understand the cultural development across Indian sub-continent, a distinct geographic pattern is emerging in the development and spread of cultures in different parts of the country and he draw lines on horizontal development of cultures rather than vertical expansion. Herman, by adopting his idea, mentioned that for Gujarat during the mature Harappan period, Lothal and Dholavira formed the urbanized core area whereas Sorath Harappan, Padri and Prabhas Patan formed an agro-pastoral periphery. The core areas appear to be zones of interaction and had a strong contact with contemporary urban settlements of entire Indian sub-continent. For the prehistoric era, it is little bit difficult to understand the core and periphery areas as people tended to prefer to settle down in geographically advantageous locations where they could make use of natural resources, and in the event of migration, they tended to prefer an environment that was similar to that of their previous habitation. The Dimasa community, as discussed in Chapter 5, adopted a unique settlement pattern characterized by a preference for living in distinct areas, embracing the concept of one area, one community. They established their dwellings in the hills and surrounding regions, following a lifestyle that remained somewhat segregated from urban centers and heavily reliant on natural resources. Except for selling of the surplus goods produced and buying of certain products, they are not entirely reliant on urban areas.

Assam and the entire Northeast region harbor a diverse array of ethnic groups, each with unique migration histories spanning different periods of time. Archaeological evidence as well as literature shows the occupation of the land from Neolithic period onwards which has shaped the present cultural behavior to a great extent. In the context of core and peripheral model, the Historical period of Assam seems to give a regional variation of growth whereas for Prehistorical period, it seems mostly functioning as a unit of marginalized areas with a specific temporal and spatial entity. The dating of historical Assam presents a complex scenario with contradictory evidence. While its recorded history is traced back to the 5th century CE, evidenced by notable inscriptions like Umachal and Nagajari Khanikargaon, archaeological findings seem to push back this timeline to the Sunga-Kushana period in the 1st century CE. The Gupta period inscription mentions Kamarupa as a frontier province, indicating the region's importance as a political hub at that time. The period from 7th-12th c CE witnessed a gradual proliferation of social groups in this area and it was after the coming of the

Ahoms, the region became one of the recognized political and economic centers in the entire Indian sub-continent. Assam emerged as a vital center in the northeastern part of the Indian subcontinent, where diverse and significant religions from the Indian subcontinent intersected, contributing to the flourishing of the "Deopani School of Art" and other regional art developments during the Pala period. This artistic and religious amalgamation elevated the region's significance, solidifying its place as an important hub for some of India's prominent religions. Ancient Assam was predominantly rural in nature and the village settlements are recorded in many inscriptions as Grama, Santibada, Mandara, and Haposa-Kasipataka and the prominent urban centers were Pragjyotishpura, Durjjaya and Kamarupanagara which covers the entire Brahmaputra Valley of present Assam. Prior to the Pala period, when the city of Pragjyotishapura (Modern Guwahati) was growing, Hiuen Tsang's writing reveals a sizeable population was migrating to the area in search of work.

The core-periphery theory, originating from capitalist economic principles and delineating the asymmetric relationship between regions marked by growth and innovation in one area while causing diminishment in another, poses inherent challenges in encompassing the prehistoric habitation of Assam within the comprehensive core-periphery model. In archaeology, Gavan (Gavan et al., 2014) used this model to comprehend the Bronze Age settlements, which provides copious evidence of both urban and rural settlement patterns. We have reliable evidence of both urban and rural settlements in a geographically accessible area for the Harappan Civilization of the Indian subcontinent, which essentially fed the urban core region by the rural one. This theory will work for Assam if we apply it to the creation of a geographic model for selecting a type of area for habitation on a large scale, i.e., a core area and flimsy habitation without much concentration of deposits as periphery. The distribution of similar kind of material evidence in form of stone tools, stone jars and cord-marked pottery from Assam and Northeast India, Southeast Asia and the eastern and some parts of northern India will be taken into consideration while establishing a distinctive model of core-periphery for these regions. Geographically inter-linked, these areas seem culturally inter-linked throughout phases of time as evident from the material remains.

Except for the two sites that have been excavated thus far, the Neolithic cultural material from Assam that has been found so far is very flimsy and dispersed throughout

many locations without proper context. This was revealed through the material analysis in the previous chapter 4. Only finished artifacts—again, not in great quantity—have been collected. Despite offering evidence of human occupation, the available data provides only a scant understanding of the nature of habitation in the area. The study of the settlement pattern is still in its nascent stages. Interestingly, the material remains form the surrounding hill regions of Assam boast a considerable richer material culture compared to the present Assam border. Because of this, especially if we create a core-periphery model for these areas, none of these sites provide a concept of higher development of cultural context other than the fact that people lived here for a while, utilized the resources, and then moved on to the next location. Northeast India was constantly subject to the dynamic influence of the monsoon influencing vegetation and climate variation throughout the late Pleistocene and Holocene epoch (Mehrotra et. al. 2014) which must have slowed down the growth of any culture or civilization. Moreover, changing climate such as high precipitation that leads to floods and agricultural hazards altogether encourages migration (Das, 2015). These elements must have had an impact on the population inhabited the areas of Northeast India in general and Assam in particular contexts. Moreover, the changing landscape due to the jhum cultivation process specifically in the hilly regions have an immense impact on the dislocation of cultural contexts.

On the other hand, Southeast Asian Hoabinihian was an indigenous stimulus and source for the domestication of rice. The origins of rice cultivation represent one of the most vital and influential changes in the history of Southeast Asia, and the evidence from Spirit caves point to its local origin. Spirit cave holds the distinction of being the earliest site identified as evidence of the Neolithic transformation or the transition towards Neolithic agricultural practices (Gorman, 1970). The ceramics from here has been dated to 1400 BCE (Lampert et al. 2003). Fuller and his research team while conducting their study on the rice in China, discerned a protected gestation period before this plant became the dominant part of the economy in the 4th millennium. Subsequently, a succession of outward demographic thrusts ensued, resulting in the expansion of rice cultivation into Southeast Asia (Fuller et al. 2009, 2010). Many prehistoric sites in Southeast Asia contain cemeteries that are rich in mortuary offerings and the first Neolithic period burial has been reported from Ban-non-Wat. In examining the material remains from Assam, as well as other regions in Northeast India and Southeast Asia, a

consistent pattern emerges wherein settlements are predominantly situated in areas exhibiting similar geographical characteristics. Moreover, the influence of river valleys from Southeast Asia is apparent, shaping the nature of all prehistoric sites of the Northeastern region, pointing towards a westward expansionary movement. (Higham, 2002). This observation implies that all of the prehistoric sites from Assam and Northeast India, and some located in other parts of India, may be considered peripheral settlements with a core influence originating from Southeast Asian countries. It is important to consider, however, that as Kohl (1987) contends, peripheries may not always reliant on cores within certain types of world systems.

All cultures have some degree of regional development despite assimilation with neighboring areas. Neolithic cultures seem to have developed in various regions of India and Southeast Asia depending on the environmental suitability, which had an effect on different levels of cultural advancement and results in a variety of cultural materials; habitational deposits and occasional structures in Southeast Asia and other parts of India along with tools and pottery, and only tools and pottery in northeast India and Assam. The main features of this period were the innovation of agriculture as well as the change from a hunter-gatherer economy to an agriculturist and pastoralist economy. All regions of India and outside produced axes, adzes, and other common stone implements using the same standard grinding and polishing techniques, but there were some distinct phenomena present in each region, such as different lifeways, resource uses, and social structures. For Assam, it has been suggested that the invention of the iron plough occurred after the introduction of so called Aryan cultural elements into the area, which was primarily post-Gupta period, or during Varman dynasty, and up until that time, people were using stone tools in agriculture, which is contemporaneous to Early Historic or early Mediaeval period in other regions' context. The basic method of cultivation was jhum by the ethnic communities which does not require ploughing. If we compare other regions of the Indian subcontinent and Southeast Asian nations, iron innovation in context of agricultural advancement was much earlier. Therefore, the Neolithic Cultural Period might have begun concurrently in all the regions, with some outside influences or non-influences, but in the case of Assam or Northeast India, it continued for a longer period.

The Assam region resembles Southeast Asia greatly due to its environment and population similarities, even though it later established cultural ties with regions in its

eastern part. If we look at the history of migration or the distribution of the population, Northeast India and Southeast Asian countries formed a similar branch. The Mahabharata mentions that Bhagadatta's army, which was made up of Kirata or Mongoloid people, fought in support of the Kauravas, indicating that their origins are with non-Aryan culture. Prior to the epic period, this particular region of India was not in contact with the cultural framework of other regions of India. But historicity of Bhagadatta and the Bhauma-Naraka dynasty to which he belonged was not proved though the dynasty was historically significant as the dynasties of Kamarupa between 4^{th} to 12^{th} c CE claimed that Naraka was their ancestor because of the ruler's divinity and reference to Naraka have been found in all the inscriptions of later ruling dynasties as well as in the 10^{th} c CE text Kalika Purana (Lahiri, 1991). Therefore, cultural assimilation with other parts of India was established during the Sunga-Kushana and Gupta period. These can be understood through archaeological evidence including inscriptions, and during the post-Gupta period through literary evidence. Prior to that, there was a great deal of cultural similarity with Southeast Asian nations, where migration of linguistic branches was in continuum.